From: Don G. Horner Hogan, Steven; Hamayasu, Toru To: Sent: 10/13/2008 12:06:27 PM Subject: FW: Memorandum to Don Horner HornerTransitMemo.pdf Attachments: Steve/Toru-pls note Carl Kim's comments. The mayor has called me/lmtc for update and I'll rtn his call and tell him at this point Carl does not have enough info to make an endorsement the project. And, I did not realize he was going out of town. ----Original Message----From: Karl Kim [mailto:karlk@hawaii.edu] Sent: Sunday, October 12, 2008 7:22 PM To: Don G. Horner Cc: Emi Morikawa Subject: Memorandum to Don Horner Don, Here's my memo to you on the Transit Project. Let me know what you think. I'm back in town next Saturday afternoon. But I have to go to Tianjin on the 23rd. I tried calling on Saturday. Karl ---- Original Message -----From: "Don G. Horner" <dhorner@fhb.com> Date: Saturday, October 11, 2008 3:00 pm Subject: Re: RE: utilities analysis... To: karlk@hawaii.edu, Emi Morikawa <emorikawa@fhb.com> > Pls call Dr Kim and setup phone mtg to discuss project. > ----Original Message----> From: Karl Kim <karlk@hawaii.edu> > To: Don G. Horner > Sent: Wed Oct 08 17:25:59 2008 > Subject: Re: RE: utilities analysis... > Attached is the unit cost analysis I've been working on. > The guideway is about \$60m per mile or about \$317 per sq ft. > The station costs seem high - on a sq foot basis. > The soft cost % is low compared to national averages. > I think I can live with most of these capital cost estimates. > I've been checking with various project engineers and others on these > costs and they seem more or less in line. > I agree the utilities costs for transit seem high - but a bus is using > about 87 gal/day or 87*4.50 = \$391 for much fewer passengers. I don't > think that PB's value for the kilowatt hour charge of .11 is correct. > Even if we use that value its more than double the 5.2 million per > year for the utility costs. > The attached spreadsheet shows what I've been doing with the unit > capital costs. > I'm getting nervous about not getting the financing plan numbers > together. >

> You can call on my cel phone 286-4878 or office 956-6865 after 8:30 PM

> I have to teach tonight between 6-8:30 PM.

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> Karl
> ---- Original Message ----
> From: "Don G. Horner" <dhorner@fhb.com>
> Date: Wednesday, October 8, 2008 1:41 pm
> Subject: RE: utilities analysis...
> To: Karl Kim <karlk@hawaii.edu>
> > Karl-I did not get anything from them as yet. But, the $26mm
> is over
> $1,000 per day per vehicle. That sounds high relative to a
> bus, etc.
>> ----Original Message----
> > From: Karl Kim [mailto:karlk@hawaii.edu]
> > Sent: Tuesday, October 07, 2008 4:14 PM
> > To: Don G. Horner
> > Subject: utilities analysis...
> >
> >
> Don,
> >
> Attached is my rough estimate of how far off they are with regard to
>> the utilities estimate. My guess is that the utility costs would be
> > more than
> > $26 million annually. That's much higher than the 8.6% (based on
>> Sacramento). Maybe they'll come back with something else...
> > Did you get anything from them like they promised?
> >
> > Karl
> >
>> +----+
> > Karl Kim, Ph.D.
> > Professor
> > Department of Urban and Regional Planning University of Hawaii at
> > Manoa
> > 2424 Maile Way, #107
> > Honolulu, Hawaii, 96822 U.S.A.
> > Tel: 808-956-7381
> FAX: 808-956-6870
> > E-mail: karlk@hawaii.edu
> > Website: http://www.durp.hawaii.edu
>> ----- Forwarded message -----
> > Date: Tue, 7 Oct 2008 15:15:33 -1000 (HST)
> > From: Karl Kim <karlk@hawaii.edu>
> > To: "Spurgeon, Lawrence" < Spurgeon@pbworld.com>
> > Cc: "Hogan, Steven" < Hogan@pbworld.com>, "Dunn, James"
> > <DunnJ@pbworld.com>
> > Subject: RE: additional information
> >
> > O.K. then if we use that value - .25 per kWH then we get something
> > like
> $26.2 million per year in energy costs? This much higher than 8.6%
> > based on the Sacramento model for the estimate of O/M costs. So the
> > AA
>> 2006 O/M costs were $61 million - the Sacramento model says
> utilities> are 8.6% =
>> $5.2 million for utilities. So my estimate is way over this value.
> > Unless I'm missing something here.
> >
> > Karl
>> +-----+
> > Karl Kim, Ph.D.
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> > Professor
>> Department of Urban and Regional Planning University of Hawaii at
> > Manoa
> > 2424 Maile Way, #107
> > Honolulu, Hawaii, 96822 U.S.A.
> > Tel: 808-956-7381
> FAX: 808-956-6870
> > E-mail: karlk@hawaii.edu
> > Website: http://www.durp.hawaii.edu
> > On Tue, 7 Oct 2008, Spurgeon, Lawrence wrote:
>> > You are probably right - I was going straight from what I
> > found on
> > > their website.
> > >
> > > ----Original Message----
> > From: Karl Kim [mailto:karlk@hawaii.edu]
> > Sent: Tuesday, October 07, 2008 2:54 PM
> > > To: Spurgeon, Lawrence
> > > Cc: Hogan, Steven; Dunn, James
> > > Subject: RE: additional information
> > >
> > >
> > That's really helpful. But after talking to HECO, I
> > understand that
>>> there's a fuel surcharge that brings the price up to
> something
> > more
> > like 0.20 - .25 per kWH - that's why I used the .25 - since
> > we're also
>> > looking at 2019. I think HECO refers to this as the
> > Energy Cost
> > Adjustment clause. Again, maybe I'm doing something
> > wrong here...
> > >
> > > Karl
>>> +-----+
> > > Karl Kim, Ph.D.
> > > Professor
> > Department of Urban and Regional Planning University of
> Hawaii
> > at
> > > Manoa
>>> 2424 Maile Way, #107
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> > Tel: 808-956-7381
> > FAX: 808-956-6870
> > E-mail: karlk@hawaii.edu
>>> Website: http://www.durp.hawaii.edu
> > >
 >> On Tue, 7 Oct 2008, Spurgeon, Lawrence wrote:
> > >
>>> Annualization factor is less than 365 days - We are using
>>308. This
> >
>>> accounts for lighter weekend service.
> > > >
>> > I get 105 GWH/year. Not sure the "right" price of
> > electricity to
> > > > use,
> > >
>>>> HECO's large demand rate on their website is 11.0668
> > cents/kWH.
>>> This sticks my estimate at $13M/year, without re-checking
> > any of my
> > > > calculations.
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> > > >
>>>> ----Original Message----
> > > From: Karl Kim [mailto:karlk@hawaii.edu]
> > > Sent: Tuesday, October 07, 2008 10:52 AM
> > > To: Spurgeon, Lawrence
> > > Subject: RE: additional information
> > > >
> > > >
> > > >
> > > So as an estimate of the annual energy costs:
> > > >
>>>> 340 \text{ MWH x } 365 = 124 \text{ GWH/ year}
> > > at .25c per KWH = $31M/ year?
> > > >
>>> Am I doing something wrong here?
> > > >
> > > > Thanks, Karl
>>>> +-----+
> > > Karl Kim, Ph.D.
> > > Professor
>>> Department of Urban and Regional Planning University of
> > Hawaii at
> > > Manoa
>>>> 2424 Maile Way, #107
>>>> Honolulu, Hawaii, 96822 U.S.A.
> > > Tel: 808-956-7381
> > > FAX: 808-956-6870
> > > E-mail: karlk@hawaii.edu
>>> Website: http://www.durp.hawaii.edu
> > > >
>>> On Mon, 6 Oct 2008, Spurgeon, Lawrence wrote:
> > > >
> > > Dr. Kim,
> > > At the most simple level, 19 mile route with 976 daily
>>>> rail-vehicle trips, and 63,000 BTU/rail-vehicle mile
> (ORNL
>>>> Transportation Energy Data Book, I used 26th Edition
> > average
>>>> numbers). Multiply that out and account for
> rounding
> > we have
> > 1,160 Million BTUs/day.
> > > >
>>>> These are our planning level calculations that are being
> > taken
>>>> into our EIS work. I understand that the systems
> > design folks
>>>> have a more detailed calculation that includes further
> > vehicle,
>>>> system operation, and passenger load detail that is
> within
> > 10% of
> > > > the
> > > planning value.
> > > >
>>>> Let me know if you need more information
> > > >
> > > > > ----Original Message----
>>>> From: Scheibe, Mark
> > > > Sent: Monday, October 06, 2008 3:04 PM
>>>> To: Spurgeon, Lawrence
>>>> Cc: Dunn, James
>>>> Subject: Fw: additional information
> > > > >
>>> > Can you or Jim deal directly with him. He's still
> > looking at
> > > > AA-level
> > > >
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>>>> info.
> > > >
> > > > Thanks
> > > >
>>>>>
> > > > Mark H. Scheibe
> > > > Parsons Brinckerhoff
> > > > Sent from my BlackBerry Wireless Handheld
> > > >
>>>> > ---- Original Message ----
>>>> From: Karl Kim <karlk@hawaii.edu>
> > > > To: Scheibe, Mark
>>> > Cc: thamayasu@honolulu.gov <thamayasu@honolulu.gov>
>>>> Sent: Mon Oct 06 20:43:27 2008
>>> > Subject: RE: additional information
> > > > >
> > > > >
>>>> Can you show me how this was calculated?
> > > > >
>>>>+
>>>> Karl Kim, Ph.D.
> > > > Professor
>>>> Department of Urban and Regional Planning University of
> > Hawaii at
> > > > Manoa
>>>>>2424 Maile Way, #107
>>>> Honolulu, Hawaii, 96822 U.S.A.
> > > > Tel: 808-956-7381
> > > > FAX: 808-956-6870
>>>> E-mail: karlk@hawaii.edu
>>>> Website: http://www.durp.hawaii.edu
> > > >
>>>> On Mon, 6 Oct 2008, Scheibe, Mark wrote:
> > > > >
> > > > >
> > > > > Karl,
> > > > >
>>>>> Here is information on energy consumption. Will
> > get back to you
> >
>>>>>> on other questions.
> > > > >
> > > > >
>>>>>> 340 MWH/day or 1,160 Million BTUs/day.
> > > > >
>>>> This is calculated from 63,000 BTU/rail-vehicle mile
> > > > >
> > > > >
>>>>>>
> > > > > Mark
> > > > >
> > > > >
> > > > > ----Original Message----
>>>> From: Hamayasu, Toru [mailto:thamayasu@honolulu.gov]
>>>>> Sent: Monday, October 06, 2008 9:07 AM
> > > > > To: Scheibe, Mark
> > > > > Subject: Fw: additional information
> > > > >
> > > > >
> > > > >
>>>>> > ----Original Message----
>>>>> From: Karl Kim <karlk@hawaii.edu>
>>>>> To: Hamayasu, Toru <thamayasu@honolulu.gov>
>>>>> Sent: Mon Oct 06 07:51:08 2008
>>>>> Subject: additional information
> > > > >
> > > > >
> > > > Toru,
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>>>>>>
>>>>> It would be really helpful if I could get more
> detailed
>>>>> information on
> > > >
>>>>> the O/M costs for Sacramento. Is it possible to get a
> > copy of
> > > > the O/M spreadsheet (both that which was used for FY03-
> > 04 and
>>>>> the 2007
> > > data)?
>>>> I'm struggling over how to justify the reasonableness
> of
> > our O/M
> >
> > > > > estimates.
> > > > >
>>>>> I also need some help on the utility costs. In
> the
> > technology
>>>>> selection papers you sent me, there are estimates of
> > energy
>>>>> requirements - not beleivable - submitted by Panos -
> one
>>>>> substation per mile - 3 MW - requiring 30 substation
> for
> > 90 \text{ MW!}
> > > > Requiring 7 - 20
>>>> millions gallons of fuel per year. Can you get
> for
> > me more
> > > > > realistic
>>>> energy requirements.
>>>>> How many kilowatts per hour? Per vehicle? To
> > operate the
> > system?
> > > > >
>>>> Can you get for me the fixed guideway costs for
> > Soundtransit's
> > > > > Seattle
> > > >
>>>>> to SeaTac Airport - arranged in similar way to the
> > spreadsheet
> > > > you
> > >
> > > > > did
> > > >
> > > > > for Horner?
> > > > >
>>>> This would help me to validate the operating and
> capital
> > costs.> > >
> > > > > Thanks, Karl
> > > > >
>>>>>
>>>>> Karl Kim, Ph.D.
> > > > > Professor
>>>> Department of Urban and Regional Planning University
> of
> > Hawaii
> > > > > at Manoa
>>>>>>>2424 Maile Way, #107
>>>>> Honolulu, Hawaii, 96822 U.S.A.
>>>>> Tel: 808-956-7381
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>>>>> E-mail: karlk@hawaii.edu
>>>>> Website: http://www.durp.hawaii.edu
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>>>>>>
> > > > >
> > > > >
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